

WE CLAIM

1. A system for selectively providing portions of a broadcast data service transmitted together with broadcast digital television data as part of a broadcast signal, the portions including data portions having digital television data in non-real time, the system comprising:

a processor for extracting portions of the broadcast data service available from the broadcast signal;

a memory for storing all of the current portions of the broadcast data service; and

a controller responsive to a selection signal to cause the memory to output selected portions of the broadcast data service; wherein

the processor is also for converting the digital television data of data portions into real time data.

2. A system according to claim 1 wherein the digital television data of the data portions is compressed and/or processed and the processor processes the data portions off-line.

3. A system according to claim 2 wherein the processor processes the data portions at times of low usage.

4. A system according to claim 1 wherein the processor operates directly on the data in the memory.

5. A system according to claim 1 wherein the processor operates in a batch processing method with data loaded locally from the memory in small chunks.

6. A system according to claim 1 wherein the processor conducts processing using a predefined protocol.

7. A system according to claim 1 wherein the processor

conducts processing using a downloaded protocol.

8. A system according to claim 1 wherein the processor conducts off line decryption of data using a key.

9. A system according to claim 1 wherein the memory is a
5 magnetic hard disk drive or a semiconductor memory.

10. A system according to claim 1 further comprising a digital television receiver for providing the broadcast signal to the processor.

11. A system according to claim 10 wherein the system is constructed as a single integral unit.

10 12. A system according to claim 10 wherein at least the memory is constructed in a unit separate from the digital television receiver and linked by means of a network connection such as an IEEE 1394 interface.

13. A system according to claim 10 wherein the digital
15 television receiver selectively provides digital television data for display and wherein the processor extracts the portions of the broadcast data service irrespective of that display.

14. A system according to 1 wherein the controller is also for identifying corresponding extracted and stored portions and for replacing
20 data portions stored in the memory with respective portions extracted from the broadcast signal.

15. A system according to claim 14 wherein, if periodically the broadcast signal includes all of the portions of the broadcast data service, the controller can store all of the received portions in the memory.

25 16. A system according to claim 14 wherein the controller can also access an additional data channel so as to obtain and store in the memory all of the portions of the broadcast data service.

17. A method of broadcasting a broadcast data service together with broadcast digital television data as part of a broadcast signal, the broadcast data service including television data, the method comprising broadcasting the television data of the broadcast data service as non-real
5 time data.

18. A method according to claim 17 further comprising processing and/or compressing a block of the television data as a whole.

19. A method according to claim 18 wherein the block comprises data requiring off-line decoding.

10 20. A method according to claim 17 further comprising, during normal broadcasting, only broadcasting portions of the broadcast data service required to replace previous respective portions which have been changed such that receivers of the broadcast signal may store all of the current portions of the broadcast data service and update the stored
15 portions according to replacement portions received with the broadcast signal.

21. A method according to claim 20 further comprising additionally broadcasting all of the current portions of the broadcast data service to enable a user to obtain all portions of the broadcast data
20 service soon after initial connection.

22. A method according to claim 21 wherein all of the current portions of the broadcast data service are broadcast using a separate dedicated channel.

23. A method according to claim 21 wherein all of the current
25 portions of the broadcast data service are broadcast periodically using an expanded bandwidth at a time of low demand for the broadcast digital television data.